

CLAIMS:

1. A method of producing a lens cell comprising:  
an ES cell maintenance step of maintaining an ES cell by using a medium containing a fibroblast growth factor FGF-2 at a concentration of 2 ng/ml to 50 ng/ml; and  
a differentiation inducing step, carried out after the ES cell maintenance step, of inducing differentiation of the ES cell into a lens cell by implanting and culturing the ES cell on a mouse-skull-cell PA6 at a cell density of 2 colonies/cm<sup>2</sup> to 6.5 colonies/cm<sup>2</sup>.
2. A method of producing a lens cell as set forth in Claim 1, further comprising a washing step, carried out between the ES cell maintenance step and the differentiation inducing step, of washing the maintained ES cell once with an ES differentiation medium.
3. A method of producing a lens cell as set forth in Claim 2, wherein the differentiation inducing medium used for inducing differentiation of the ES cell into a lens cell is used as the ES differentiation medium.
4. A method of producing a lens cell as set forth in any one of Claims 1 to 3, wherein, in the ES cell maintenance step, the medium contains the fibroblast growth factor FGF-2 at a concentration of 4 ng/ml to 50 ng/ml.
5. A method of producing a lens cell as set forth in any one of Claims 1 to 4, wherein, in the differentiation inducing step, the ES cell is implanted on the PA6 cell at a cell density of 2.5 colonies/cm<sup>2</sup> to 4.0 colonies/cm<sup>2</sup>.

6. A method of producing a lens cell as set forth in any one of Claims 1 to 5, wherein the ES cell is derived from primates.

7. A method of producing a lens cell as set forth in Claim 6, wherein the ES cell is derived from cynomolgus monkey.

8. A lens cell obtained by a method of producing a lens cell set forth in any one of Claims 1 to 7.